



United States Department of Agriculture

Natural Resources  
Conservation Service  
South Dakota SD-FS-96  
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# Monarch Butterfly



Photo by: Xerces Society/www.xerces.org

## What is the Monarch Butterfly?

The monarch butterfly is a large butterfly with a 3 to 4 inch wingspan. This species is bright orange and has black veins and black wing edges with white spots. Monarch larvae (caterpillars) are banded black, yellow, and white with a pair of black “horns” protruding from each end.

The caterpillars feed on milkweed and obtain a toxin from the plant that makes both the larvae and adult butterfly toxic to most predators.

Monarchs are unique in that there are four generations of butterflies through the year. Three generations generally live six to eight weeks from egg through adulthood. However, the fourth generation migrates south and hibernates prior to mating and laying eggs. This fourth generation lives up to five months.

## What is their “status”?

The monarch butterfly is not currently listed under either the Convention on International Trade in Endangered Species of Wild Fauna and Flora ([CITES](#)) or protected specifically under the Endangered Species Act (ESA) in the United States (U.S.). However, the USFWS has been petitioned to list the species as threatened.

The NRCS works with USDA program participants to implement conservation actions for species and their habitats that may eliminate the need to propose and/or list the species as threatened or endangered.

## Where in S.D. do they call home?

This species is commonly found throughout eastern South Dakota (SD) and less common west of the Missouri River. The butterfly is not present in SD year round. Certain generations of Monarch’s migrate between the U.S., Mexico, and Canada—a journey that for some individuals can cover over 3,000 miles.

## Where am I most likely to see this butterfly?

The monarch butterfly is found in open areas, including pastures, prairies, marshes, weedy places, and roadsides. Basically you could see this species anywhere milkweeds would grow starting in May or early June through August. And, again during fall migration in September and October, often in wooded areas where they roost for the night, often in groups.

The caterpillar feeds exclusively on the leaves of milkweeds. The adult butterfly feeds on a wide variety of flower nectar, especially common milkweed, swamp milkweed, gayfeather, thistles, joe-pyeweed, asters, and sunflowers; also garden flowers such as marigold, cosmos, and zinnia.



Photo by: Karan Rawlins, U of Georgia/Bugwood.org

## What are the threats?

- Loss of milkweed plants and native flowering forb species from the landscape.
- Herbicide use and certain insecticide use.
- Habitat conversion to cultivated agriculture.
- Grazing that decreases plant health, amount of forbs, and increases non-native species.
- Degradation of overwintering sites (not in SD).

### What are the opportunities?

The SD NRCS provides technical and/or financial assistance to landowners to address threats to this species that may occur on their land. Stop in and ask the local NRCS office to assist you with preparing land management plans which will achieve your objectives and help this butterfly.

Specific actions landowners can take are:

#### **Habitat Establishment / Restoration:**

Providing habitats with milkweeds and commonly used native forbs can help this butterfly.

- Develop low production cropland to native grasses and wildflowers.
- Develop habitat patches as native grasses and wildflowers.
- Provide milkweed by skipping corners or odd areas when applying herbicide and insecticide.
- Limit herbicide and pesticide application to only those areas that absolutely require treatment. Eliminate herbicide application if possible. Check local laws, as some county noxious weed lists include milkweed.
- Provide wet, muddy areas as a water and mineral source.

The NRCS can help develop plans for both grazing lands and habitats in agro-ecosystems that provides this butterfly's habitat needs.

#### **Maintain and Improve Healthy Grazing lands:**

Grazing maintains grassland habitats. However, preferred plants may disappear if grazing does not occur in a manner that sustains the native prairie plants.

The NRCS can help develop a sustainable prescribed grazing system addressing both livestock and butterfly needs. This could include additional livestock water and/or fence.

#### **What plants does the butterfly use?**

The monarch can use both native and introduced plants. For a range seeding wildflowers should comprise a maximum of 10 percent of the seeding.

If the purpose is for a pollinator habitat then there is no maximum amount of wildflowers that can be included in the seeding mixture.

Consult your local NRCS office for seeding rates, plant site suitability, and other plant information (USDA program restrictions may apply).

**Table 1.0 commonly used native forbs. Plants with a very high monarch value are shaded in green and should be selected for seed mixes.**

Common Name (Last name, First name)	Scientific Name
aster, Geyer's	<i>Symphyotrichum leave var. geyeri</i>
aster, heath	<i>Symphyotrichum ericoides</i>
aster, New England	<i>Symphyotrichum novae-angliae</i>
beebalm, wild	<i>Monarda fistulosa</i>
black-eyed Susan	<i>Rudbeckia hirta</i>
blazing star, meadow	<i>Liatris ligulistylis</i>
blazing star, rough	<i>Liatris aspera</i>
boneset, common	<i>Eupatorium perfoliatum</i>
boneset, false	<i>Brickellia eupatoriodes</i>
compass plant	<i>Silphium laciniatum</i>
coneflower, purple	<i>Echinacea angustifolia</i>
culvers root	<i>Veronicastrum virginicum</i>
cup plant	<i>Silphium perfoliatum</i>
gromwell, false	<i>Onosmodium bejariense</i>
gayfeather, dotted	<i>Liatris punctata</i>
gayfeather, thickspike	<i>Liatris pycnostachya</i>
goldenrod, gray	<i>Solidago nemoralis</i>
goldenrod, late	<i>Solidago gigantea</i>
goldenrod, Missouri	<i>Solidago missouriensis</i>
goldenrod, showy	<i>Solidago speciosa</i>
goldenrod, stiff	<i>Oligoneuron rigidum var. humile</i>
hyssop, lavender	<i>Agastache foeniculum</i>
ironweed, prairie	<i>Vernonia fasciculata</i>
Joe-pye weed, spotted	<i>Eutrochium maculatum</i>
milkweed, butterfly	<i>Asclepias tuberosa</i>
milkweed, common	<i>Asclepias syriaca</i>
milkweed, swamp	<i>Asclepias incarnata</i>
milkweed, whorled	<i>Asclepias verticillata</i>
prairie clover, purple	<i>Dalea purpurea</i>
prairie clover, white	<i>Dalea candida</i>
sunflower, false	<i>Heliopsis helianthoides</i>
sunflower, Maximilian	<i>Helianthus maximiliani</i>
sunflower, prairie	<i>Helianthus petiolaris</i>
sunflower, sawtooth	<i>Helianthus grosseserratus</i>
sunflower, stiff	<i>Helianthus pauciflorus</i>
vervain, blue	<i>Verbena hastata</i>
vervain, hoary	<i>Verbena stricta</i>

To learn more contact your local NRCS office, or go to [www.sd.nrcs.usda.gov](http://www.sd.nrcs.usda.gov).